

PATENT TROLLS—AN OVERVIEW OF PROPOSED LEGISLATION AND A SOLUTION THAT BENEFITS SMALL BUSINESSES AND ENTREPRENEURS

ADAM SMITH^{*}

I. INTRODUCTION

At the very inception of the United States the Founding Fathers understood the importance of, and need for, a strong patent protection system by providing in the Constitution that, “[t]he Congress shall have power . . . [t]o promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”¹ Patents and intellectual property portfolios have become the lifeblood of many organizations thanks to strong patent rights.² Patent rights have helped to foster the innovation and efficiency that has made the American economy strong.³ Lately, the rise of certain patent-assertion entities, colloquially termed “patent trolls,” has renewed discussion on the proper balance and means of granting and enforcing patent rights. These patent trolls have inspired spirited conversations on many levels, from the halls of the White House⁴ to the back room of the neighborhood store, about the state and effectiveness of the current patent law. These conversations have weighty implications. Recent studies have estimated patent trolls as accounting for at least \$30,000,000,000 in settlement and licensing fees annually.⁵ This number “has increased fourfold” from 2003–2013 and continues to rise.⁶ The White

^{*} J.D. Candidate, The Ohio State University Moritz College of Law, Class of 2015.

¹ U.S. CONST. art. I, § 8 cl. 8.

² See U.S. Chamber of Commerce, *Why are Intellectual Property Rights Important?*, GLOBAL INTELL. PROP. CENTER (Dec. 28, 2014), <http://www.theglobalipcenter.com/why-are-intellectual-property-rights-important/>.

³ *Id.*

⁴ See generally Gene Sperling, *Taking on Patent Trolls to Protect American Innovation*, WHITE HOUSE BLOG (June 4, 2013, 1:55 PM), <http://www.whitehouse.gov/blog/2013/06/04/taking-patent-trolls-protect-american-innovation>; see also Press Release, Off. of Press Sec’y, Fact Sheet – Executive Actions: Answering the President’s Call to Strengthen Our Patent System and Foster Innovation (Feb. 20, 2014), available at <http://www.whitehouse.gov/the-press-office/2014/02/20/fact-sheet-executive-actions-answering-president-s-call-strengthen-our-p>.

⁵ Joel B. Carter, *Responding to a Patent Troll’s Threats*, ARK. LAW., Summer 2013, at 30.

⁶ *Id.* But see Pamela Maclean, *Uptick in Patent Litigation Not Caused by ‘Trolls’*: Study, REUTERS LEGAL, Nov. 19, 2013 (on file with the publisher).

House estimates that over 100,000 companies were threatened by patent trolls in 2012 alone.⁷

This Note seeks to explain the patent troll problem and present a comprehensive solution. The Note begins by outlining the definition of a patent troll in Part II. This definition distinguishes other patent assertion entities and explains why the patent troll problem is limited to the kinds more precisely termed Trolling Patent Trolls (TPTs). The Note then discusses the negative effects that TPTs have on society, particularly on small businesses and entrepreneurs. Part III seeks to explain the relevant changes at the United States Patent and Trademark Office (USPTO) under the new federal patent act (the America Invents Act) that improve the quality of issued patents. These improvements affect the practice of TPTs by reducing the availability of vague and ambiguous patents that TPTs assert. In Part IV, this Note provides an overview of some recently proposed legislation aimed at disrupting the TPTs' business model and discusses their advantages and weaknesses. Finally, in Part V, this Note proposes a balanced, comprehensive and multifaceted solution to the TPT problem: a combination of legislative and judicial reforms with private actions that will significantly reduce the TPTs' practice by providing individuals and entities with the proper incentives, means and mechanisms for fighting TPTs.

II. THE (TROLLING) PATENT TROLL PROBLEM

A. Definitions and Types of Patent Assertion Entities

Credit for coining the term "patent troll" is given to Peter Detkin, former Assistant General Counsel for Intel, who came up with the term after he was sued for defamation for using the term "patent extortionists" to describe an opposing party.⁸ Detkin defines a patent troll as "somebody who tries to make a lot of money off a patent that they are not practicing and have no intention of practicing and in most cases never practiced."⁹ Reminiscent of Justice Stewart's infamous definition of pornography, "I know it when I see it,"¹⁰ an exact definition for a TPT is a highly contested matter and often involves the gut reaction of an experienced party. This is particularly true because some entities blur the line between patent assertion entity and TPT or practice a bit of both.¹¹ The elusive nature of a concrete

⁷ Sperling, *supra* note 4.

⁸ Brenda Sandburg, *You May Not Have a Choice. Trolling for Dollars, Patent Enforcers Are Scaring Corporate America, and They Are Getting Rich – Very Rich – Doing It*, RECORDER, July 30, 2001, at 1.

⁹ *Id.*

¹⁰ *Jacobellis v. Ohio*, 378 U.S. 184, 197 (1964) (Stewart J., concurring).

¹¹ See, e.g., Joe Mullin, *Uber-troll Intellectual Ventures Faces Motorola in First Patent Trial, Three Patents, Two Low-profile Inventors, One Jury*, ARS TECHNICA (Jan. 24, 2014, 11:15 AM), <http://arstechnica.com/tech-policy/2014/01/uber-troll-intellectual-ventures-faces-motorola-in-first-patent-trial/>.

TPT definition at least partially contributes to the continued difficulty in crafting acceptable legislation to counter the effects of TPTs.¹² Many of the commonly used patent troll definitions focus on whether or not the entity practices the patent.¹³ This results in the labeling of entities, such as universities and research institutions, that do not generate the public costs a TPT does and that many are unlikely to view as deserving of the label.¹⁴ Even the definition by the Intellectual Property Owners Association, while more appropriately narrow, is still vague: “trolls are not themselves inventors, but are always lawyers or investors who acquire paper patents from insolvent individuals or companies at fire-sale prices.”¹⁵ As this is an area of developing definitions and renewed focus, these terms and definitions continue to change.

Due to a developing and often overly broad TPT definition, many entities are included in the current TPT definition that might not fit the definition of a true TPT. There are three main types of trolls: inside trolls, heat seeking trolls, and “regular” TPTs.¹⁶ “Inside trolls: are entities that actually do produce a product, but often do not practice (i.e., do not produce or manufacture the invention disclosed in their patents) on all, or even most, of the patents in their portfolio.”¹⁷ These entities patent items they do not specifically produce in order to prevent competition in their production space.¹⁸ By excluding competitors, these entities may continue profitable production of their practiced-on patented products. “Heat seeking trolls” are non-producing entities that buy up patents from other institutions or have an agreement with practicing entities to use their patents and assert them against infringing entities via litigation.¹⁹ Heat seeking trolls often include law firms or intellectual property groups licensed by universities who assert their client’s patent rights against infringers for a flat fee or sometimes even on a commission basis.²⁰ Finally, “regular” TPTs are institutions that typically buy up a number of old, inexpensive, vague and likely invalid patents to assert against a large pool of weak targets via threatening letters and license demands, but rarely assert their patents via litigation.²¹

¹² See Ashley Chuang, Note, *Fixing the Failures of Software Patent Protection: Deterring Patent Trolling by Applying Industry-specific Patentability Standards*, 16 S. CAL. INTERDISC. L.J. 215, 218 (2006).

¹³ *Id.* at 219.

¹⁴ *Id.*

¹⁵ Victoria E. Luxardo, Comment, *Towards a Solution to the Problem of Illegitimate Patent Enforcement Practices in the United States: An Equitable Affirmative Defense of “Fair Use” in Patent*, 20 EMORY INT’L L. REV. 791, 793–94 (2006) (citations omitted).

¹⁶ Carter, *supra* note 5.

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ See *id.*

²¹ *Id.*

Regular TPTs are the institutions that individuals typically think of as the “true” patent trolls. Before explaining why TPTs are really the true “bad guys,” a brief discussion of why other types of patent trolls do not deserve a similar label is warranted. Inside trolls are often necessary for the survival of an entity.²² Not every variant, improvement or related invention to the practiced-on patent will likely be produced, even if that variant idea is patented. This may be because entities need to clear space for their invention to survive or because the idea was patented before the entity is able to determine whether production is profitable. A party who comes up with a new idea will likely patent every patentable embodiment of that idea they can conceptualize, and sometimes that means taking out more than one patent. Indeed, entities often require the protection of a provisional or non-provisional patent before they are able to perform the necessary market research, investor fundraising or commercialization research to determine the profitability of a patented invention. Alternatively, an idea could be initially promising, but later found unworkable due to regulatory, liability or manufacturing cost concerns, to name a few possible reasons.

For a hypothetical example, imagine a doctor who comes up with a cure for the common cold. The inventor might patent the drug in a powdered form for pills, in a liquid form for swallowing and a different liquid form for intravenous injection. The inventor may find that the drug is most popular in the pill form because it tastes bad in a liquid and most people do not care for shots. The inventor, having spent millions inventing the cure, would likely still enforce his liquid and intravenous form patents against other manufacturers. Otherwise, the inventor may not be able to recoup all of his costs and make an adequate profit. Without these incentives, the inventor may not have spent the time and energy to develop a cure and the world would lose out on the benefit.

Heat seeking trolls can provide economically beneficial liquidity and revaluation for patents available on the market by buying out patent rights.²³ Like other commodities, the more patents are bought, sold or licensed, the more accurate the market price. In fact, many universities and research institutions use heat seeking patent trolls essentially as outsourced patent enforcers, hiring them to enforce their patent rights against infringers.²⁴ Additionally, as some heat seeking trolls work on commission,²⁵ they may provide the only financially viable means for an entity, particularly a small business or entrepreneur who has fewer resources, to enforce their patent rights.

²² *See id.*

²³ *See id.*

²⁴ Peter Lee, *Patents and the University*, 63 DUKE L.J. 1, 43–44 (2013).

²⁵ *Id.*

Regular TPTs have few, if any, of these redeeming qualities.²⁶ At least one commentator analogized TPTs to blackmail, a market that required judicial and legislative action to shut down.²⁷ This commentator noted that the simple presence of willing buyers and sellers does not equate with social welfare.²⁸ TPTs do not produce anything or come up with any new ideas because they simply purchase already-available patents with no intent to produce.²⁹ Further, they do not provide significant liquidity or revaluing because they choose their buying, selling and licensing fees based on the transactional costs of litigation, not on the value of the patent.³⁰ Additionally, many of the asserted patents are ones that, if litigated, would likely be found invalid. These patents are asserted against a multitude of individuals and entities, many of whom would be found not to be infringing the asserted patents if they chose to challenge the infringement claim.³¹ This has a net effect of TPTs making large sums of money from innocent parties that could otherwise be spent on things like growth, research and development, and job creation. TPTs have made a viable and often very lucrative business from this practice.³²

B. An Overview of the TPT Problem—Why TPTs Exist

TPTs are able to exploit their business niche for many reasons. First, many potentially invalid patents are approved by the USPTO every year.³³ Even if valid, these patents often have an overly broad scope that allows the holder to sue a larger number of individuals or entities than is

²⁶ See generally T.J. Chiang, *What is a Troll Patent and Why Are They Bad?*, PATENTLY-O (Mar. 6, 2009), <http://www.patentlyo.com/patent/2009/03/what-is-a-troll-patent-and-why-are-they-bad.html>; Brian J. Love & James C. Yoon, *Article: Expanding Patent Law's Customer Suit Exception*, 93 B.U. L. REV. 1605, 1609–10 (2013).

One thing that is not seriously debated, however, is the harm caused by patent holders that specialize in nuisance-value patent litigation. No one champions these “bottom feeders” of the NPE ecosystem: a class of patentees that overwhelmingly acquire old, extremely weak patents and assert them against the numerous, unsophisticated purchasers (rather than manufacturers) of allegedly infringing products in suits that typically settle for less than defendants’ anticipated litigation costs.

Id.

²⁷ Robert P. Merges, *The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform*, 24 BERKELEY TECH. L.J. 1583 (2009).

²⁸ See generally *id.*

²⁹ *Id.* at 1599.

³⁰ See *id.* at 1600.

³¹ See *id.* at 1610.

³² See discussion *infra* Part II.B.

³³ Benjamin J. Bradford & Sandra J. Durkin, *A Proposal for Mandatory Patent Reexaminations*, 52 IDEA 135, 136 (2012) (“The patents licensed and enforced by NPEs or patent trolls are often considered ‘bad patents’ because of the likelihood that they are invalid and were only issued because the U.S. Patent and Trademark Office . . .”).

actually warranted by the prior art, and contains vague or ambiguous language that fails to put the USPTO examiners, potential defendants,³⁴ judges and juries on notice as to what exactly the patent covers.³⁵ Finally, challenging TPTs represents a classic “free rider” problem—one person may expend the time and resources required to invalidate a patent or have a technology declared not infringing, but the entire class of individuals affected by the asserted patent gets to free ride on the judgment and no longer needs to be concerned about the TPTs’ threats.

While the asserted patents may be found invalid if litigated, patent infringement claims are infrequently made because of the significant transactional costs of defending an infringement claim or obtaining an invalidity judgment. The hefty legal expenses involved in litigating a patent are approximately \$1,000,000 just to get to discovery and over \$2,000,000 to get to a decision on the merits.³⁶ TPTs are aware of these significant transactional costs and agree to settle their claims with the potential defendant via an exclusive license for a value below the litigation cost threshold, but large enough to be significant (\$20,000 to \$100,000 is not unusual).³⁷ As these license fees are extracted via patents that are likely invalid or not infringing, many equate the TPT practice to a modern day shake down. Patent attorneys are also aware of these problems and often feel forced to encourage their clients to simply pay the licensing fee.³⁸

A typical TPT business model takes advantage of potential litigation costs to dissuade patent owners from defending against the claim. This pushes potential defendants into a position where they are incentivized to simply pay the licensing fee without much contest. Therefore, TPTs rarely actually litigate patents. As such, if potential defendants can identify that they are dealing with a known TPT, they may elect to take a calculated risk and avoid the licensing fee by fighting the case until the TPT drops it, or by simply failing to respond to the TPTs’ threats all together.³⁹ Further, the allegedly infringing technologies threatened by the TPT are typically not central to that party’s business (e.g., Wi-Fi patents asserted against a coffee shops that offers Wi-Fi for its guests or networked printer-scanner-copier patents asserted against a real estate office), so potential defendants are unlikely to be well versed in intellectual property matters (i.e., they are easily frightened or intimidated into a lawsuit) and are unlikely to be highly invested in the outcome. Thus, these businesses are not highly incentivized

³⁴ For the purposes of this Note, “potential defendants” refers to the parties threatened by trolling patent trolls who theoretically could be defendants in an infringement action.

³⁵ Bradford & Durkin, *supra* note 33, at 137.

³⁶ See Caroline Coker Coursey, *Battling the Patent Troll: Tips for Defending Patent Infringement Claims by Non-manufacturing Patentees*, 33 AM. J. TRIAL ADVOC. 237, 241 (2009).

³⁷ See generally *id.*

³⁸ *Id.*

³⁹ *Id.*

to invest their resources into a non-infringing or invalidity declaration. Unfortunately, this is not the only issue.

Another important part of this problem is that TPTs typically go after a large number of individual defendants who must each litigate the matter separately, as opposed to going after a manufacturer or product provider who has the incentive to litigate on behalf of its current and future customers.⁴⁰ In fact, it is common practice for the threatening letters sent by TPTs to explicitly state that they are not going to sue manufacturers or product providers in the hopes of keeping out these parties who might have the incentives and resources to fight the TPT.⁴¹ Further, these potential defendants are generally spread geographically and do not know each other.⁴² Even if they had the desire to somehow pool their resources, it is unclear if they are even able to identify each other or legally permitted to pool their resources.⁴³ In any matter, the logistics would likely prevent such collaborative action.⁴⁴ It is also difficult for these potential defendants to know if they are dealing with a TPT or a different type of patent assertion institution because TPTs work to obfuscate their true identity, typically by operating through a complex series of shell companies.⁴⁵ These shell companies serve not only to disguise the real party in interest in the lawsuit, but also to shield and limit the TPT's assets from liability.⁴⁶

The result is that these patents are rarely challenged, even if they are invalid or the potential defendant is not infringing. A few companies have taken a stand against these infringement threats. Newegg is a prominent example. It has chosen to fight TPTs based on ethical reasons and the idea that fighting will result in the long-term benefit of not being threatened by other TPTs who will realize that they are in for a battle, one that could ruin their business model with an invalidity or non-infringement declaratory judgment.⁴⁷ Newegg and other similar companies have taken a public stand that they will fight all entities they see as TPTs, and they have

⁴⁰ See J.P. Mello, *Technology Licensing and Patent Trolls*, 12 B.U. J. SCI. & TECH. L. 388, 394 (2006).

⁴¹ *Id.*

⁴² See *id.*

⁴³ See *id.* at 397.

⁴⁴ *Id.*

⁴⁵ See generally Tom Ewing & Robin Feldman, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1 (2012).

⁴⁶ See generally *id.*

⁴⁷ See generally Julie Knudson, *When the Patent Trolls Come Knocking NewEgg calls in Lee Cheng*, PROFILE (Oct.–Dec. 2013), <http://profilemagazine.com/2013/newegg/>; Joe Mullin, *Newegg Hurtles Toward Texas Showdown with Famed "Patent Troll"*, ARS TECHNICA (Nov. 18, 2013, 9:30 AM) [hereinafter *Texas Showdown*], <http://arstechnica.com/tech-policy/2013/11/newegg-hurtles-toward-texas-showdown-with-famed-patent-troll/>; Joe Mullin, *"Shopping Cart" Patent Troll Tries to Save Itself, Gets Pounded by Newegg*, ARS TECHNICA (Sept. 6, 2013, 3:45 PM) [hereinafter *"Shopping Cart" Patent Troll*], <http://arstechnica.com/tech-policy/2013/09/shopping-cart-patent-troll-tries-to-save-itself-gets-pounded-by-newegg/>.

done so against some of the nation's largest and best-funded ones.⁴⁸ These include suits against TPTs asserting patents on online shopping carts⁴⁹ and public encryption—which are some of the most widely asserted patents in history.⁵⁰ Newegg cannot fight all the TPT battles, however. The high costs of time, money and energy, tricky logistics, uncertainty of litigation and the free rider effect often prove too much for companies and they, rationally, choose simply to settle for a licensing fee.⁵¹ As a result, many lawmakers have begun an earnest search for a solution that eases the burden of litigating against TPTs.

C. TPTs Have a Significant Negative Effect on Small Businesses and Entrepreneurs

TPTs often target small and entrepreneurial businesses due to their relatively smaller assets, lack of experience and fear of legal action.⁵² Numerous news articles detail the exploitation by TPTs, particularly those who prey on small and entrepreneurial businesses. One such example is a TPT that bought several patents related to wireless technology and proceeded to send mass threatening letters targeting franchised hotels, coffee shops, stores and restaurants.⁵³ The TPT sent letters threatening litigation, but providing the alleged offenders with the option of dropping charges in exchange for a \$2,300 to \$5,000 licensing fee.⁵⁴ Presumably, the TPTs target these small business owners because the owners have sufficient assets to pay the licensing fee, but lack the experience and resources to fight the infringement claim.⁵⁵ More importantly, these small businesses lack the incentives and desire to risk losing an invalidity or non-infringement declaratory judgment proceeding, or even worse, to be found to actually be infringing and forced to pay potentially hefty damages.⁵⁶

In a similar story, a TPT law firm bought a portfolio of patents related to networked printer-scanner-copier combination devices.⁵⁷ These

⁴⁸ See Knudson, *supra* note 47.

⁴⁹ See, e.g., "Shopping Cart" Patent Troll, *supra* note 47.

⁵⁰ Texas Showdown, *supra* note 47.

⁵¹ Knudson, *supra* note 47; see also Texas Showdown, *supra* note 47 (The Jones patent litigation involving five years of litigation, "hundreds" of lawsuits, "tens of millions" of dollars in payments, a still unclear result.).

⁵² See Chuang, *supra* note 12, at 231–232.

⁵³ Mike Masnick, *Patent Troll Says Anyone Using WiFi Infringes; Won't Sue Individuals 'at this Stage'*, TECHDIRT (Oct. 3, 2011, 11:28 AM), <http://www.techdirt.com/blog/wireless/articles/20111001/003654161/patent-troll-says-anyone-using-wifi-infringes-wont-sue-individuals-this-stage.shtml>.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ See *id.*

⁵⁷ Steve Salzberg, *Did You Scan and Email That Document? You Might Owe \$1000 to a Patent Troll*, FORBES (Aug. 5, 2013, 8:00 AM), <http://www.forbes.com/sites/stevensalzberg/2013/08/05/did-you-scan-and-email-that-document-you-might-owe-1000-to-a-patent-troll/>.

devices, which are used in most homes and businesses, allow a user to scan a document and send it to a networked computer.⁵⁸ The TPT law firm proceeded to send out mass threatening letters offering a \$1,000 licensing fee to avoid litigation, particularly to small businesses.⁵⁹ Numerous other stories repeat essentially the same theme across a variety of small businesses and technologies.⁶⁰

The issue of TPTs is one that has plagued small businesses and entrepreneurs for some time now, increasingly so in recent years.⁶¹ As the TPT problem continues to rise, the conversation around TPTs has grown increasingly urgent as businesspersons continue to demand solutions to the growing problem. In the subsequent parts, this Note seeks to explain the relevant changes under the new America Invents Act patent legislation that affect the practice of TPTs, overview some of the proposed TPT legislation and propose a multi-faceted solution to the TPT problem.

III. THE BATTLE FOR BETTER PATENTS AT THE USPTO AND IMPROVEMENTS MADE BY THE AMERICA INVENTS ACT

As previously discussed, TPTs operate by accumulating overly broad, vague, confusing and likely invalid patents that cover large technological areas and often fail to put the examiner and potential defendant on sufficient notice as to what the patent covers.⁶² Many point to the USPTO as a major source of this problem and blame the lack of USPTO resources for the issuance of poor-quality patents.⁶³ The lack of resources at the USPTO is a legitimate concern, but it is one that is outside the scope of

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ See Love & Yoon, *supra* note 26, at 610–11.

Recent years have seen a spike in high-profile patent assertion of this sort. In the last two years, NPE Innovatio[n] has asserted its patent rights – rights the company alleges cover any use of a Wi-Fi network – against hundreds of small businesses like coffee shops and hotels that offer wireless network access to patrons . . . mobile applications that enable users to make purchases on mobile devices . . . NPE Project Paperless has threatened to sue an untold number of small offices for infringing patents that allegedly cover copiers equipped to email scanned files . . . Personal Audio has similarly threatened end users of podcasting software. Entities like PJC Logistics and ArrivalStar have sued over 600 trucking companies, private auto fleet owners, and public bus and rail authorities that use GPS devices to track their vehicles.

Id.; see also Victoria Finkle, *Why Patent Reform Matters to Banks*, AMERICAN BANKER (Dec. 6, 2013, 2:06 PM), http://www.americanbanker.com/issues/178_234/why-patent-reform-matters-to-banks-1064106-1.html (explaining the impact of patent trolls on banks).

⁶¹ Bradford & Durkin, *supra* note 33, at 138–41; Sperling, *supra* note 4.

⁶² Sperling, *supra* note 4.

⁶³ Bradford & Durkin, *supra* note 33, at 138–41.

this Note. What is likely the largest and most significant piece of patent legislation in recent history was signed into law on September 16, 2011, the Leahy-Smith America Invents Act (the America Invents Act or AIA).⁶⁴ The AIA made many notable changes to U.S. patent law, fundamentally changing it from a “first-to-invent” to a “first-to-file” system.⁶⁵ Other important changes allow for greater access to the USPTO, and particularly to its post-issuance review and challenge processes, for smaller entities and individuals who are interested parties.⁶⁶ Those changes will likely prove to have a lasting effect on the quality of the patents issued from the USPTO. These positive changes will have a long-term deterrent effect on TPTs by reducing the number of vague, confusing, and likely invalid patents issued. As the vague and confusing patents available now continue to expire, they will no longer be available in the market place, and therefore will not be available for TPTs to assert. This has the added benefit of relatively increasing the number of valid and clear patents in the market, which improves the faith in the USPTO, U.S. patent law and the judicial system. Some of these changes include the implementation of derivative proceedings, revised post-grant review, the addition of the *inter partes* review proceedings and the alteration of the fee schedule to include reduced fees for small and micro entities. Each of these items will be discussed in turn.

A. Derivative Proceedings—the New System for the AIA’s First-to-file System

Derivative proceedings allow an alleged inventor to contest the issuance of a patent if he believes that he is in fact the true inventor, or believes that the challenged invention is a mere derivative of their existing invention.⁶⁷ This proceeding replaces the interferences proceeding under the old patent system (i.e., pre-AIA), where an alleged inventor could assert that he invented the claimed invention first. As the AIA has moved the United States into a first-to-file system, the party who invents first no longer matters. However, true and valid inventorship remains an important requirement for a valid patent to be issued. This new derivative proceeding continues to help ensure that the patents issued by the USPTO are valid by giving other interested parties the opportunity to assert their inventorship of the claimed invention. Further, the “mere derivative” aspect of the derivative proceeding allows an inventor to challenge a patent that is the

⁶⁴ See generally Leahy-Smith America Invents Act, H.R. 1249, 112th Cong., (1st Sess. 2011) (enacted).

⁶⁵ See generally *id.*

⁶⁶ See generally *id.*

⁶⁷ See 35 U.S.C. § 135(b) (Supp. V 2011) (“In a derivation proceeding instituted under subsection (a), the Patent Trial and Appeal Board shall determine whether an inventor named in the earlier application derived the claimed invention from an inventor named in the petitioner’s application and, without authorization, the earlier application claiming such invention was filed.”).

same or substantially the same (i.e., patentably indistinct) as the claimed invention.⁶⁸ This new proceeding is cheaper than the old interference proceeding and thus more accessible to small businesses and entrepreneurs who typically have fewer assets than large entity filers, such as corporations.⁶⁹

B. *Post-grant Review Remains Helpful, but Largely Unchanged*

Post-grant review is a process whereby anyone can challenge the validity of a patent that has been recently issued.⁷⁰ This process allows interested parties to help ensure that accurate and valid patents are issued by the USPTO by permitting these parties, who naturally have an incentive to challenge a patent's validity, to present their arguments before the USPTO. Post-grant review has not seen many changes under the AIA, but its continued presence is a vital part of ensuring that only high-quality patents are issued from the USPTO. The post-grant review procedure allows a person to challenge the validity of the patent on any potentially invalidating grounds.⁷¹ The person can challenge the validity of the patent by submitting any prior art that bears on the patentability of any claim or statement by the inventor related to the scope of the invention.⁷² The challenge will be allowed if it is more likely than not that a claim will be invalid or the challenge will resolve an important, novel or unsettled legal question.⁷³ The burden of proof for invalidation under these proceedings is on the challenger, who must prove invalidity by a preponderance of the evidence.⁷⁴ While the cost of post-grant review is not trivial (starting at \$35,800 in filing fees and rising sharply based on the number of challenged claims, not including attorney's fees), it is still typically much more cost-effective than traditional litigation.⁷⁵

While post-grant review is a helpful mechanism, it does have its shortcomings. First, the challenge must be filed within nine months of the

⁶⁸ See Gene Quinn, *First Inventor to File: UPSTO Derivative Proceedings Go Final*, IP WATCHDOG (Sept. 10, 2012, 11:26 AM), <http://www.ipwatchdog.com/2012/09/10/first-inventor-to-file-uspto-derivation-proceedings-go-final/id=27986/>.

⁶⁹ Richard G. Braun, *America Invents Act: First-to-File and a Race to the Patent Office*, 8 OHIO ST. ENTREPREN. BUS. L.J. 47, 49 (2013).

⁷⁰ Eugene T. Perez, *Post-Grant Review*, POST GRANT PROCEEDINGS, http://www.postgrantproceedings.com/patent_modification/post_grant_review.html (last visited Apr. 6, 2014).

⁷¹ Jeffrey C. Parry, *Preemptive Strike: New Third Party Patent Review Procedures Via the America Invents Act*, 55 ADVOC. 18, 19 (2012).

⁷² *Id.*

⁷³ Chad M. Rink, *Post-Grant Review and Inter Partes Review*, POST GRANT PROCEEDINGS, <http://www.postgrantproceedings.com/topics/article-CMRPGRIPR.html> (last visited Apr. 6, 2014).

⁷⁴ *Id.*

⁷⁵ Parry, *supra* note 71.

publication of the patent or patent application in question.⁷⁶ Potential defendants of TPTs are seldom targeted so early in the life of a patent.⁷⁷ Most TPTs do not even acquire a patent until after the patent has been issued for several years.⁷⁸ Secondly, post-grant review challenges trigger an estoppel effect.⁷⁹ This means that a party will be bound by the judgment made and estopped from arguing the merits that were raised, or reasonably could have been raised, on appeal to the district or circuit court.⁸⁰ This broad estoppel effect often makes litigators hesitant to invoke this proceeding since they cannot relitigate the issue later should their challenge fail. Relatedly, proceedings at the USPTO are generally less formal and regulated than at the district or circuit court levels, as required to meet their goals of being faster and cheaper than traditional litigation. Some practitioners fear that this less formal setting might not give proper weight to their arguments and result in less thorough scrutiny of the challenged patent. This informality coupled with the estoppel effect deters some practitioners from recommending post-grant review to their clients.

C. Inter Partes Review—the Crown Jewel of New Review Procedures

The *inter partes* review process is a new procedure implemented by the AIA that replaces and greatly improves upon the *inter partes* reexamination procedure.⁸¹ Like post-grant review and *inter partes* reexamination, this proceeding allows for interested parties to help ensure that accurate and valid patents are issued by the USPTO. This has the long-run effect of discouraging TPTs by limiting the availability of potentially invalid or murky patents. This new procedure fills the gap after post-grant review, allowing challenges to the validity of a patent after nine months from issuance.⁸²

Like post-grant review and *inter partes* reexamination, *inter partes* review allows a person to challenge the validity of the patent on any potentially invalidating grounds.⁸³ The person can challenge the validity under 35 U.S.C. §§ 102 (anticipation) or 103 (obviousness).⁸⁴ The

⁷⁶ *Id.*

⁷⁷ See, e.g., Jeff John Roberts, *Troll Sues New York Times with 1998 Patent from Holocaust Group*, GIGAOM (Oct. 22, 2013, 12:37 PM), <http://gigaom.com/2013/10/22/troll-sues-new-york-times-with-1998-patent-from-holocaust-group/>.

⁷⁸ *Id.*

⁷⁹ Rink, *supra* note 73.

⁸⁰ *Id.*

⁸¹ *Id.* See generally *IPX vs. IPR, A Cheat Sheet*, STERNE, KESSLER, GOLDSTEIN & FOX, PLLC (2012), http://www.skgf.com/uploads/29/doc/Inter_Parties_Reexamination_vs._Inter_Parties_Review.pdf.

⁸² *Inter Partes Review*, FISH & RICHARDSON POST-GRANT REVIEW, <http://fishpostgrant.com/inter-partes-review> (last visited Mar. 31, 2014).

⁸³ *Id.*

⁸⁴ Rink, *supra* note 73.

challenge will be allowed if there is a reasonable likelihood that petitioner will prevail.⁸⁵ The burden of proof for invalidation under these proceedings is on the challenger who must prove invalidity by a preponderance of the evidence.⁸⁶ While the cost of *inter partes* review is not trivial (starting at \$27,200 in filing fees and rising sharply based on the number of challenged claims, not including attorney's fees), it is still typically much more cost effective than traditional litigation.⁸⁷

The *inter partes* review procedure corrects many of the deficiencies of the *inter partes* reexamination procedures. While the *inter partes* review process is more expensive, it is more thorough, expedited and settlement friendly. It is more settlement friendly because settlements do not trigger an estoppel effect.⁸⁸ The review is expedited; it is down to eighteen months from the thirty-six months.⁸⁹ For thoroughness, *inter partes* review includes a discovery process, an oral argument and the review is performed by a more experienced, higher-authority board than its predecessor.⁹⁰ These improvements result in better opinions and provide the review more weight in subsequent legal proceedings.

Inter partes review still has similar estoppel effects and informality concerns as compared to post-grant review. However, the first full decision on the merits of an *inter partes* review petition has been handed down by the USPTO in *Garmin International, Inc. v. Cuozzo Speed Technologies, LLC*.⁹¹ The fact that a major company like Garmin decided to utilize *inter partes* review suggests that the advantages of *inter partes* review may outweigh the risks.⁹² In this case, Garmin petitioned against Cuozzo Speed Technology over a speed limit indicator used in conjunction with their GPS units that provides a signal to the driver when the vehicle is exceeding the speed limit.⁹³ The court sided with Garmin and invalidated Cuozzo's patent.⁹⁴

Perhaps most importantly, the decision to cancel the claims was based on an obviousness combination of four patents, which is more than the two or sometimes three patents that district courts typically entertain.⁹⁵ This suggests that petitioners may be able to win on more factually complex situations at the administrative level with proceedings involving *inter partes* review, where the arguments are made before administrative judges

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *IPX vs. IPR, A Cheat Sheet*, *supra* note 81.

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ Dennis Crouch, *A First IPR Decision on the Merits*, PATENTLY-O (Nov. 14, 2013), <http://www.patentlyo.com/patent/2013/11/first-ipr-decision.html>.

⁹² *See id.*

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

who all have technical backgrounds, than in the district or circuit courts.⁹⁶ This is significant because the factual findings in administrative hearings often benefit from a “substantial evidence” standard in the district or federal circuit courts, or even a “clear and convincing” standard in some circumstances.⁹⁷ Therefore, if a petitioner can be successful at the less costly and less time consuming administrative level via *inter partes* review, that petitioner will likely be entitled to some level of deference at the district court or circuit court levels. Thus, *inter partes* review may be an advantageous strategic choice for parties interested in declaring a third party’s patent invalid.

D. *The Addition of Micro Entities to the Fee Schedule is a Helpful Step*

The AIA has also implemented a new, enhanced equity-based fee schedule. This new fee schedule separates institutions into large, small and micro entities; the micro entity is a new addition under the AIA.⁹⁸ A “large” entity is defined as any entity that is not a “small” or “micro” entity.⁹⁹ A small entity is essentially one that has not assigned its rights to a large entity, has 500 or fewer employees or is a non-profit organization.¹⁰⁰ A micro entity is essentially an entity that has filed less than four patents, had an income in the previous year of less than three times the median U.S. income and that has not assigned its patent to someone with an income in the previous year of more than three times the median U.S. income.¹⁰¹ Generally, a small entity’s fees are half of a large entity’s fees, and a micro entity’s fees are half of a small entity’s fees (i.e., a quarter of a large entity’s fees).¹⁰² These reductions are equally applicable for the aforementioned review methods, thus lowering the barrier to entry for small businesses and entrepreneurs, those often most affected by TPTs, to challenge a patent’s validity by initiating any of the above reviews.

E. *The Repeal of Joinder in Infringement Suits*

As part of the AIA, an anti-joinder provision was enacted. Under the previous patent laws, a plaintiff could join a group of defendants solely

⁹⁶ *Id.*

⁹⁷ Robert M. Asher, *Inter Partes Review: The New Markman Hearing?*, AM. B. ASS’N (Feb. 20, 2012), <http://apps.americanbar.org/litigation/committees/intellectual/articles/winter2012-inter-partes-review-markman-hearing.html>.

⁹⁸ *Current Fee Schedule*, USPTO, <http://www.uspto.gov/web/offices/ac/qs/ope/fee031913.htm> (last revised Mar. 13, 2014).

⁹⁹ Leahy-Smith America Invents Act, H.R. 1249, 112th Cong., (1st Sess. 2011) (enacted).

¹⁰⁰ 13 C.F.R. § 121.802 (2014).

¹⁰¹ *Id.*

¹⁰² See *Current Fee Schedule*, *supra* note 98.

because they were all accused of infringing the same patent.¹⁰³ Under the AIA, plaintiffs can no longer join alleged defendants solely under this theory.¹⁰⁴ The idea behind this provision is to increase the burden on TPTs to initiate litigation, making litigation more costly and time consuming for the TPT and thus discouraging TPT litigation.¹⁰⁵ This provision, while helpful, does not do enough to discourage trolls. Though it does make it more burdensome for TPTs to pursue litigation, many TPTs base their business model on either never, or very rarely, pursuing litigation. Rather, these TPTs generally gather their licensing fees simply by sending threatening letters. Therefore, the parties that this provision is most likely to impact are the other types of patent assertion entities that actually provide a beneficial market action.

The AIA takes many steps towards improving the quality of patents that are issued by the USPTO, particularly by providing improved processes that involve interested third parties, allowing these parties to argue and challenge the merits of a patent at all stages of a patent's life via revising derivation proceedings and post-grant review and implementing *inter partes* review and micro entity fees. Again, as these processes continue to improve issued patents, a higher percentage of issued patents will be valid and clear. Over time, the overly broad, vague, confusing and likely invalid patents will expire and be replaced by these clear and valid patents. Thus, the aggregate effect of improving patent quality has the long-term effect of reducing the number of murky patents available to TPTs. These steps, which provide lower-cost alternatives to traditional litigation, have a significant impact on small businesses and entrepreneurs who are frequently the target of a TPT's threats.

IV. PROPOSED LEGISLATION IS HELPFUL, BUT DOES NOT ADEQUATELY SOLVE THE TPT PROBLEM

Due to the increased conversation and political pressure on the issue of TPTs, a remarkably high amount of legislation has been proposed recently.¹⁰⁶ The problem of TPTs is complex and involves balancing many factors and potentially impacts many industries. Because not all of the proposed legislation can be discussed in this Note, efforts were taken to select the legislation that currently appears to be the most promising and is

¹⁰³ George D. Medlock Jr. & David Frist, *Joinder: Over a Year After the America Invents Act*, LANDSLIDE Mar.–Apr. 2013, at 44, 44.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ See generally Matt Levy, *Patent Progress's Guide to Patent Reform Legislation*, PAT. PROGRESS (Mar. 4, 2014),

[http://www.patentprogress.org/2014/03/04/patent-progresss-guide-to-patent-](http://www.patentprogress.org/2014/03/04/patent-progresss-guide-to-patent-reform-legislation/)

[reform-legislation](http://www.patentprogress.org/2014/03/04/patent-progresss-guide-to-patent-reform-legislation/); Sid Venkatesan, *Examining the Effects of Patent-Troll*

Legislation on Startups, TECHCRUNCH (Aug. 3, 2013),

<http://techcrunch.com/2013/08/03/effects-of-patent-troll-legislation-on-startups/>; /.

representative of similar proposals being considered.¹⁰⁷ These proposed measures fail to adequately solve the TPT problem and adequately balance the many interests that must be considered when deciding on new legislation. Many of the proposals, however, speak to some of the individual underlying issues and propose novel ideas that should be considered when crafting a final, comprehensive solution to this problem. Several pieces of proposed legislation will be discussed herein. The discussion of each proposal will include an overview of the proposed language and its operation in practice, as well as its strengths and weaknesses.

A. *The SHIELD Act—Fee Shifting*

The first piece of proposed legislation to examine is the Saving High-Tech Innovators from Egregious Legal Disputes Act of 2013, or “SHIELD” Act.¹⁰⁸ Introduced by Congressman Peter DeFazio (D-OR) and Congressman Jason Chaffetz (R-UT),¹⁰⁹ this proposed legislation is limited to computer or software patents, a common technology area for TPTs.¹¹⁰ The SHIELD Act requires a plaintiff to post bond covering attorney’s fees before trial if the plaintiff is not an original inventor or assignee, did not make a substantial investment in practicing the invention or is not a university.¹¹¹ The proposed legislation then allows the court to award fees if there was not a substantial likelihood of success in the case.¹¹² This process is illustrated in Figure 1 below.

¹⁰⁷ Efforts were made to ensure that this Note is up to date between authorship and publication; however, as the discussion surrounding patent assertion entities is a dynamic and hotly contested issue, some statements may be outdated as of the time of this Note’s publication.

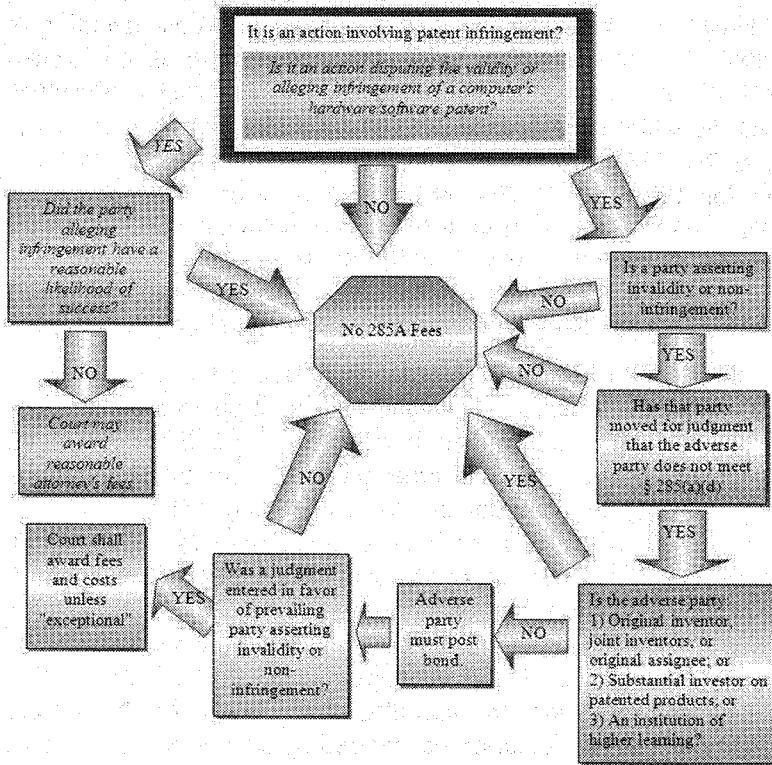
¹⁰⁸ H.R. 845, 113th Cong. (1st Sess. 2013).

¹⁰⁹ *Id.*; see Tim Wortsall, *The Shield Act Tries to Kill the Patent Trolls. But Does It Go Far Enough?*, FORBES (Mar. 1, 2013, 12:16 PM), <http://www.forbes.com/sites/timworstall/2013/03/01/the-shield-act-tries-to-kill-the-patent-trolls-but-does-it-go-far-enough/>.

¹¹⁰ *Id.*

¹¹¹ Christian J. Martinez, *SHIELD Act Part 2 and Other Proposals to Combat Trolls*, IPWATCHDOG (Jun. 16, 2013, 7:40 AM), <http://www.ipwatchdog.com/2013/06/16/shield-act-part-2-and-other-proposals-to-combat-trolls/id=41836/>.

¹¹² *Id.*

Figure 1: Flow Chart of the SHIELD Law Act¹¹³

The SHIELD Act has its appeal. The SHIELD Act benefits significantly from the use of a well-known tool: fee shifting.¹¹⁴ Fee shifting statutes have been used, quite influentially and successfully, in many areas and particularly in public interest litigation such as civil rights. Challenging a TPT by attempting to obtain an invalidity or non-infringement declaration falls under public interest litigation because, as previously mentioned, obtaining a declaratory judgment presents a free rider problem—one person may bear the entire cost in time and resources to have a patent declared invalid or to have a certain practice or technology declared as not infringing a patent, yet the entire class of individuals actually or potentially affected by the asserted patent(s) gets the benefit of no longer having to worry about the TPT's threats.¹¹⁵ Such action also inspires confidence in the USPTO as well as the judicial system by rooting out bad patents and providing judicial relief to deserving parties. Additionally, the incentive of attorney's fees lowers the barrier to entry by providing an additional incentive for alleged infringers to litigate the validity of the patent(s), as they may be able to recoup their expenses.

¹¹³ *Id.*¹¹⁴ *Id.*¹¹⁵ *Id.*

Among the greatest weaknesses of the legislation is that it essentially switches the traditional assumption of American legal jurisprudence. American courts typically require each party to “pay their own way.”¹¹⁶ In public interest cases such as civil rights, the legislature has reversed this presumption by permitting the court to award attorney’s fees, but only in “exceptional” cases.¹¹⁷ The proposed SHIELD Act, however, goes a step further and *requires* the court to award attorney’s fees if the defendant prevails, *unless* the case is exceptional.¹¹⁸ This is a significant departure from traditional American jurisprudence and thus likely faces an uphill battle in becoming law. Rightly so, as this departure will capture a good amount of legitimate patent assertion entities and discourage individuals from asserting their legitimate intellectual property rights.

Beyond this potential hurdle, there are other weaknesses in the SHIELD Act. First, the proposed legislation attempts to provide a carve out for other patent assertion entities, but its scope is still too broad and will likely capture a good number of other patent assertion entities. In essence, the proposed legislation assumes that every party is a TPT, and then provides certain exceptions, such as original inventors and universities, rather than beginning with the traditional presumption that the parties are not TPTs and then providing an exception for TPTs.¹¹⁹ This presumption creates an overly broad scope in which an unacceptable number of other patent assertion entities would be forced to incur the burden of a bond before trial and toil under the looming presumption of fee shifting. This would certainly be a calculation considered by parties before attempting to assert their patents in litigation and would prevent some parties from entering litigation. It would also provide unfair settlement negotiation leverage for the non-TPT entities caught in the fee-shifting presumption. Secondly, the fee shifting provision does not solve the underlying problem that the TPTs often exploit: the fact that the target entities typically do not have the resources to bring a non-infringement or invalidity suit of greater than \$2,000,000. Third, this statute could dampen the market for the purchase of patent portfolios by forcing buyers to take on the added liability of such a costly lawsuit in potential attorney’s fees to defend the validity of their patents, particular considering that the SHIELD Act does not require that the TPT sue the user first. A TPT user (individual or entity) of a patented product could challenge a non-TPT patent holder’s (individual or entity) patent and with the presumption of awarding fees. This could force legitimate patent assertion entity or simple patent owner to pay the suing parties attorney’s fees—potentially leading to a type of “reverse trolling.”

¹¹⁶ John F. Vargo, *The American Rule on Attorney Fee Allocation: The Injured Person’s Access to Justice*, 42 AM. U. L. REV. 1567, 1578 (1993).

¹¹⁷ *Id.*

¹¹⁸ H.R. 845, 113th Cong. (1st Sess. 2013).

¹¹⁹ *See id.*

B. The Patent Abuse Reduction Act/Patent Litigation and Innovation Act of 2013—Requiring Claim Charts and Placing Pleading Hurdles for Patent Trolls

The Patent Abuse Reduction Act and the Patent Litigation and Innovation Act of 2013 are two independent bills introduced by Senator John Cornyn (R-TX) and Congressman Hakeem Jeffries (D-NY), respectively.¹²⁰ Both bills are essentially designed to discourage TPTs by requiring the use of claim charts during pleadings.¹²¹ A claim chart is a well-known tool used in patent law that compares a claim in one patent with a disclosure in another patent, other piece of prior art or an infringing technology. Generally, the bills would require a plaintiff to document the specific infringement action by the defendant by presenting it against each claim of the asserted patent.¹²² More specifically, the bills require that a plaintiff do the following: identify each patent; claim an accused instrumentality, including if known, the name or model number; identify where each element of each asserted claim identified is found within the accused instrumentality; identify whether such element is infringed literally or under the doctrine of equivalents; and identify how the terms in each asserted claim correspond to the functionality of the accused instrumentality.¹²³ The bills have other less significant requirements, such as mandatory joinder of interested parties, and they provide for more limited discovery (presumably to reduce costs and speed up the litigation) and fee shifting.¹²⁴

This legislation seeks to impede TPTs by requiring that they provide more tailored information for each pleading. This tailored information makes it more likely that, in order to actually obtain a valid infringement claim past a motion to dismiss or a summary judgment stage, the infringement claims must be realized in the allegedly infringing technology. While this can be an added burden on other patent assertion entities, claim charts are well-known tools in patent litigation and they would likely be crafted in one form or another during litigation, or even as a part of basic pre-suit due diligence, anyhow, in order to prove a case of infringement. These two bills seek to limit discovery and provide fee shifting, both of which are designed to ease the burden for defendants to fight TPTs.

¹²⁰ S. 1013, 113th Cong. (1st Sess. 2013); H.R. 2639, 113th Cong. (1st Sess. 2013).

¹²¹ *Id.*; Levy, *supra* note 106; *Stop Patent Trolls. Support the Innovation Act of 2013*, ELECTRONIC FRONTIER FOUNDATION, https://action.eff.org/o/9042/p/dia/action3/common/public/?action_KEY=9416 (last visited Mar. 31, 2014).

¹²² Levy, *supra* note 106.

¹²³ *Id.*

¹²⁴ *Id.*

These proposed bills fall short from truly fixing the TPT problem in a few ways. TPTs often operate on the “scare tactic” principal by sending threatening demand letters and scaring inexperienced and unsophisticated parties into paying a licensing fee. Unfortunately, this practice would not be necessarily impacted by these pieces of proposed legislation as the requirements are set only for pleadings, not demand letters. It is true that the ultimate litigation might be less burdensome, and thus more accessible to these parties. However, these same parties are unlikely to have either the resources or the inclination to become entangled in prolonged litigation and, in any matter, most TPTs attempt to avoid litigation all together. The TPTs cast a wide net of threatening letters and rely on a percentage of those threatening letters to return a licensing fee. Those that actually do file suit generally only do so in the hopes of settlement, rarely taking matter past the initial pleading stage. Also, like the SHIELD Act, these bills do not solve the free rider problem whereby one defendant is forced to shoulder the burden and responsibilities of challenging the patent’s validity while every other defendant can free ride off of the defendant’s declaratory judgment if they are successful.

C. *The End Anonymous Patents Act and Transparency Measures*

Transparency measures are a class of proposed legislation that seek to improve the visibility of asserting entities like TPTs. This is helpful because transparency devices provide a means for potential defendants and their counsel to ascertain whether they are dealing with a TPT or another kind of patent assertion entity and formulate an appropriate strategy. Some proposed legislation requires greater transparency in demand letters, while others require greater transparency in the patents themselves.¹²⁵ One representative piece of proposed legislation is the End Anonymous Patents Act, introduced by Ted Deutch (R-FL).¹²⁶ This bill requires that issued patents disclose the patent owner(s) and the real parties in interest.¹²⁷ This information is required to be updated throughout the life of the patent.¹²⁸

This bill likely is the most realistic of any recently proposed legislation because it is effective and not overly burdensome to any party. The bill only solves part of the problem, however, and is therefore not a complete solution. While the practice of disclosing the real party in interest is already required by the USPTO, the USPTO lacks a strong enforcement

¹²⁵ See generally Dennis Crouch, *Patent Reform 2013: Demand Letter Transparency Act of 2013*, PATENTLY-O (Nov. 20, 2013), <http://www.patentlyo.com/patent/2013/11/patent-reform-2013-demand-letter-transparency-act-of-2013.html>.

¹²⁶ H.R. 2024, 113th Cong. (1st Sess. 2013).

¹²⁷ *Id.*

¹²⁸ *Id.*

mechanism, and this bill provides it.¹²⁹ The bill gives the USPTO requirement real “teeth” by preventing the award of damages unless the asserting party has established the accurate ownership and real party in interest.¹³⁰ For example, the notorious patent assertion entity, Intellectual Ventures, has an estimated 2,000 shell companies, which can make ascertaining the true party in interest difficult, even for sophisticated parties.¹³¹

Requiring the real party in interest is not an uncommon practice. For example, titles to real property are part of the public record and their transfer must be recorded. This not only allows a potential defendant to evaluate the scope of an entity’s ownership in a technology area for determining whether pursuing a non-infringement or invalidity action is worthwhile, but also serves to bring about a deeper information disclosure during licensing or intellectual property acquisition transactions.¹³² This also allows parties to take proactive steps, such as acquiring patent portfolios in a particular technology area, to help insulate them from litigation.¹³³ This also discourages the practice of “privateering,” at least as used nefariously. Privateering refers to companies who hire other companies to sue allegedly infringing parties in order to insulate themselves from retaliation.¹³⁴ Companies who hire other companies to enforce their patents will still have to disclose that they are the real party in interest in relation to the asserted patent.¹³⁵ This is helpful because some beneficial non-practicing entities, such as universities, use these privateers to enforce their patents.¹³⁶ Thus, this disclosure will only negatively impact those who wish to keep their patent interest secret, such as TPTs.

¹²⁹ Adi Kamdar, *Whose Patent Is It Anyway? A New Bill to End Patent Anonymity*, ELECTRONIC FRONTIER FOUND. (May 20, 2013), <https://www.eff.org/deeplinks/2013/05/whose-patent-it-anyway-new-bill-end-patent-anonymity>.

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² John Callahan, *Microsoft Supports End Anonymous Patent Act in Congress*, NEOWIN (May 17, 2013 11:38 PM), <http://www.neowin.net/news/microsoft-supports-end-anonymous-patents-act-bill-in-us-congress>.

¹³³ *See id.*

¹³⁴ Susan Decker, *Patent Privateers Sail the Legal Waters Against Apple, Google*, BLOOMBERG (Jan. 11, 2013, 12:00 AM), <http://www.bloomberg.com/news/2013-01-11/patent-privateers-sail-the-legal-waters-against-apple-google.html>.

¹³⁵ *Id.*

¹³⁶ *See* Mark Lemley, *Are Universities Patent Trolls?*, 18 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 611, 618 (2008).

One notable example is Eolas Technologies, Inc., v. Microsoft Corp., in which the University of California licensed a software patent to a company that really does look like a patent troll, however you want to define that term, and then shared with that company a jury award of \$520.6 million against Microsoft.

Id. (citation omitted).

Some critics believe that this bill does not go far enough and that parties will get around the real party in interest requirement by simply granting exclusive licensing agreements, which are not covered under the proposed legislation, instead of granting outright ownership of a patent.¹³⁷ Some of these critics argue that the real party in interest requirement should be disclosed even for licensing transactions.¹³⁸ Such a requirement, however, would likely be overly burdensome and broad, capturing many other legitimate patent assertion entities and hampering patent licensing transactions. Particularly for the small businesses and entrepreneurs who are arguably the most affected by TPTs, this measure likely falls short of being truly effective because, while it may help them identify a troll, it does not solve some of the fundamental problems with invalidity and non-infringement litigation including the significant litigation costs and the free-rider problem.

D. *Vermont's New Legislation and State Law Tort Actions*

This section is different from the rest for two reasons: first, because it involves a piece of legislation that has actually been enacted; second, because it is the only state law action. This legislation is worth examination because it is a unique and unprecedented solution to the TPT problem that has seen actual use. Other states have taken other various state actions based on existing law, such as consumer fraud or intimidation, but these have largely failed to have any significant impact.¹³⁹ Vermont has taken up the matter of TPTs within their state by passing legislation, called the Bad Faith Assertions of Patent Infringements, that permits a state tort remedy against TPTs.¹⁴⁰ This law permits a state law tort cause of action against parties that the court finds to have asserted their patents in bad faith.¹⁴¹ The law does not give a bright-line rule as to what qualifies as a bad faith assertion; however, some of the most common attributes of TPTs are listed as part of a multi-factor, but neither comprehensive nor determinative, set of considerations for a judge to assess.¹⁴² These factors include asserting

¹³⁷ Martinez, *supra* note 111.

¹³⁸ See generally Kamdar, *supra* note 129.

¹³⁹ See *Bruning Enjoined in Patent Troll Case*, LINCOLN J. STAR (Jan. 15, 2014, 11:00 AM), http://journalstar.com/business/local/bruning-enjoined-in-patent-troll-case/article_7befd879-faa7-57a6-b59d-3e59be4d1888.html. Ohio and other states have proposed similar legislation, but so far none have been successfully enacted. See, e.g., *Patent Troll Legislation Introduced in Ohio House*, OHIO BANKER DIRECT (Ohio Bankers League), Mar. 12, 2013.

¹⁴⁰ VT. STAT. ANN. tit. 9, §§ 4195–99 (2013); Eric Goldman, *Vermont Enacts the Nation's First Anti-Patent Trolling Law*, FORBES (May 22, 2013, 2:22 PM), <http://www.forbes.com/sites/ericgoldman/2013/05/22/vermont-enacts-the-nations-first-anti-patent-trolling-law/>; see also Ashby Jones, *New York State Cracks Down on 'Patent Trolls'*, WALL ST. J. (Jan. 13, 2013, 7:05 PM), <http://online.wsj.com/news/articles/SB10001424052702303819704579319071070777820>.

¹⁴¹ VT. STAT. ANN. tit. 9, §§ 4195–99.

¹⁴² See *id.*

meritless claims, demanding an unreasonably short response to the demand and failing to compare the claims to the party's specific technology.¹⁴³ This law not only permits private parties to pursue an action, but also permits the state attorney general to pursue such a claim.¹⁴⁴ The statute allows for significant compensation including equitable relief, costs (including attorney's fees), treble damages and \$50,000 in exemplary damages.¹⁴⁵

This law is helpful because it gives parties a means to recoup some of the expenses of fighting a TPT. More importantly, it gives the state attorney general the ability to fight TPTs on behalf of the people of the state, thereby eliminating the free rider problem—at least at the state level—by using public tax dollars to fight a TPT. In fact, Vermont's attorney general has already utilized this new cause of action in pursuit of such a remedy against one of the largest and notorious patent assertion groups in recent history, MPHJ Technologies.¹⁴⁶ The complaint has been filed and trial is pending.¹⁴⁷

While the enumerated factors used in the Vermont legislation are helpful for identifying a TPT, when there is money to be made, plaintiffs become notoriously crafty in managing to outpace legislation and will likely find a way to design their business and draft pleadings to avoid this state tort action. Additionally, because private parties suffer from a free rider problem due to the high cost of litigation and public benefit of a declaratory judgment of patent invalidity, this action is likely to be largely limited to action by the state attorney general. Therefore, this is not comprehensive because it fails to enable and incentivize individual private parties to take action against TPTs. Whether this piece of state legislation is effective or not may not matter. The subject matter of patents is exclusively vested in the federal government by the U.S. Constitution, and it is therefore unclear as of now if there will be a federal preemption issue raised by this legislation.¹⁴⁸

While the proposed and enacted state and federal legislation discussed herein contains many novel and useful ideas, it fails to comprehensively and effectively fix the problems created by TPTs. There are many useful ideas that have been proposed that have been borrowed, modified and combined in this Note for Part V to present a comprehensive and effective solution.

¹⁴³ *See id.*

¹⁴⁴ *See id.*

¹⁴⁵ *See id.*

¹⁴⁶ Goldman, *supra* note 140.

¹⁴⁷ *Id.* *See generally* Vermont v. MPHJ Tech. Invs. LLC, No. 282-5-13Wncv (Vt. Sup. Ct. 2012).

¹⁴⁸ *See* U.S. CONST. art. I, § 8, cl. 8; Camilla A. Hrdy, *What Is Happening in Vermont: Patent Law Reform from the Bottom Up*, PATENTLY-O (May 27, 2013), <http://www.patentlyo.com/patent/2013/05/what-is-happening-in-vermont-patent-law-reform-from-the-bottom-up.html>.

V. PROPOSED SOLUTIONS BENEFITTING SMALL BUSINESSES AND ENTREPRENEURS

The TPT is the only type of patent assertion entity that causes the kind and degree of economic harm worthy of legislative and judicial reform, as well as private action. TPTs take advantage of the high costs of patent litigation and harm the public good by declaring a patent invalid for personal gain. TPTs are particularly harmful to small businesses and entrepreneurs, who are the frequent targets of their threats. There are many types of patent assertion entities, but the TPTs are the only ones that represent a true threat to, and net drain on, the economy. TPTs take advantage of the high costs of contesting claims of infringement and invalidity litigation coupled with the assertion of poor quality and likely invalid patents in order to extract licensing fees on common technology. TPTs take advantage of the lack of resources and experience of parties, often small businesses and entrepreneurs, by trolling a large number of potential defendants via threatening letters and demands for license fees and rarely, if ever, actually litigate the infringement claims.

The implementation of the AIA has brought many changes to patent law, some of which are likely to have a long-term adverse impact on TPTs by increasing the quality of patents issued by the USPTO. In particular, the addition of *inter partes* review provides a more thorough process for post-grant challenges to patents as well as an administrative forum where more complex factual issues may be considered that bear weight on later adjudication. Additionally, legislation has been proposed, and some has been enacted, at both the federal and state levels to combat TPTs. Each of these proposals has its own strengths and weaknesses, but no piece of legislation represents a comprehensive solution to the TPT problem. This section seeks to present a comprehensive solution at the federal level by modifying and combining some of the already proposed ideas as well as introducing some unique ideas.

A. *Encouraging Transparency by Enhancing the Real Party in Interest Disclosure Requirement and a Call for Private Sector Action*

One flaw in the current system of patent laws that helps to create an environment where TPTs thrive is the anonymity of real parties in interest. Potential defendants encounter great difficulty in identifying whether they are dealing with a TPT or another type of patent assertion entity, like the heat seeking or inside trolls, because the real party in interest is often not identified. The End Anonymous Patents Act and similar legislation seeks to provide “teeth” to the mandatory disclosure of the real party in interest requirement by requiring that the real party in interest be disclosed in order

for a plaintiff to receive damages.¹⁴⁹ This measure also has the benefit of providing a public shaming incentive to discourage TPTs, because TPTs often come under public criticism once they are identified.¹⁵⁰ The disclosure of the real party in interest requirement is not overly burdensome because the law already requires it. This legislation simply provides a stronger enforcement mechanism. Heightened disclosure and transparency requirements are a sound way to ensure that the requirement is actually carried out.

While some critics state that this law does not go far enough and that licensing should be included, that requirement would be overly burdensome, as it would require every licensee or licensor to disclose every license agreement with the USPTO. For example, for the popular word processing program, Microsoft Word, Microsoft grants each user a limited license on the use of its patented technology when the software is purchased and installed. It is easy to see how such a requirement would be burdensome as well as invasive. Some companies, like software companies, would essentially be disclosing their entire client list to the USPTO, presumably for public consumption. However, licensee and licensors are still covered in limited circumstances. If a licensee or licensor wishes to sue for infringement, they would still have to disclose themselves as the real party in interest during litigation. This provides adequate protection to parties being sued by licensees or licensors, while balancing the burden and privacy of end users and legitimate patent assertion entities.

The End Anonymous Patents Act alone, however, is not sufficient to provide the level of transparency needed to allow potential defendants to identify whether or not a TPT is behind the threats. This is particularly true because most TPTs base their business model on not pursuing litigation. As such, one of the only ways that a potential defendant has to identify the asserting party is the threatening letter, which often includes a sample complaint. Any proposal for transparency should include a provision that requires threatening letters and complaints to also identify the real party in interest in order to collect damages. In this way, a potential defendant can compare threatening letters to assist them in ascertaining whether they are dealing with a TPT, and collectively, potential defendants across the country can determine whether they may be dealing with the same TPT.

The USPTO could be required to provide a database of these letters as submitted by users to allow potential defendants across the nation to help identify if they are dealing with a TPT as well as other potential defendants being targeted. It seems more realistic and efficient, however, that the private sector could provide such a service.¹⁵¹ The service could form a

¹⁴⁹ H.R. 2024, 113th Cong. (1st Sess. 2013).

¹⁵⁰ See, e.g., STOP PROJECT PAPERLESS, *Ending Patent Trolling*, <http://stop-project-paperless.com> (last visited Apr. 6, 2014).

¹⁵¹ Some such services have already begun to surface. See, e.g., TROLLING EFFECTS, <https://trollingeffects.org> (last visited Apr. 6, 2014). These services have

viable business model for private companies, a valuable draw for dues-paying members of trade or intellectual property organizations, or law firms who may use such a database as a means of advertising and generating clients (subject to relevant ethical considerations). This way geographically diverse or otherwise unknown and unaffiliated parties may compare infringement demand letters to determine if they are likely dealing with a TPT, devise a common strategy and ascertain whether they wish to act cohesively in fighting the TPT.

B. Crowdsourced Funding and Establishing Other Similar Mechanisms for Collaborative Action Against TPTs

As alluded to in the previous section, another essential component of a comprehensive TPT solution is to foster and facilitate collective action against TPTs. As previously noted, TPT victims are generally small business owners and entrepreneurs who lack the resources to individually fight a TPT and also suffer from a free rider problem if they invest resources into challenging the infringement claim alone. This is particularly true in the matter of challenging the patent's validity because there are generally little or no damages to sue for if the patent is declared invalid. Therefore, an individual challenger must risk significant resources with no guarantee of a favorable outcome or way to recoup expenses. This discourages many individual defendants from litigating against TPTs. If these risks can be sufficiently dispersed over many individual defendants, however, individuals will be more likely to fight TPTs. Risk dispersion is a particularly effective solution because each individual defendant can benefit equally from the patent being declared invalid. As such, a legislative or judicial mechanism should be implemented that permits and incentivizes individual small businesses and entrepreneurs to act collectively. Such action would disperse their individual risk when faced with threats from the same TPT over the same patents or technology. This can be accomplished in many ways. In particular, a form of crowdsourced funding and private collective action groups would provide an efficient solution. These mechanisms are well known and require little additional regulatory burden.

An alternative possibility could be to recognize and permit class actions against TPTs for invalidity. However, this solution does not work well with the traditional model of class actions. Traditional class actions require a financial incentive for attorneys to go out and find a large class with potential damages distribution per plaintiff, so that the plaintiff's attorney is incentivized to bring in as many plaintiffs as can be joined. In

been recognized and made available to inventors and practitioners by the USPTO through their new webpage. *See generally Been Sued or Gotten a Demand Letter? Answers to Common Questions About Patent Litigation*, USPTO, <http://www.uspto.gov/patents/litigation/index.jsp> (last modified Feb. 20, 2014, 8:20 AM).

the case of TPTs, there is no real financial gain incentive in play, rather it is simply a problem of combining resources for defendants, hence the suggestion of a crowdfunding solution and private collaborative groups. Crowdsourcing funding has arisen lately as a popular means for collaborative funding.¹⁵² Crowdsourcing funding is “the practice of funding a project or venture by raising many small amounts of money from a large number of people, typically via the Internet.”¹⁵³ While primarily a concept and mechanism for enhanced access to investment capital provided by recent federal securities legislation, a similar mechanism might be organized by private groups of individuals, law firms or trade organizations to finance common defense actions involving TPTs.

By utilizing the proposed transparency mechanism discussed in Part V, the many potential defendants threatened by a TPT may identify each other and contribute to a central fund in order to fund a single defendant’s challenge to the patent’s validity. If the challenge is successful, all defendants share equally in the benefit of no longer having to pay a licensing fee to the TPT. This method can still suffer from a free rider problem, however, as the other threatened parties who did not contribute to the fund benefit from the patent being declared invalid. In order to counter this weakness, some incentive must be potentially available to the participating parties.

This measure does not stop with crowdsourcing funding of litigation, however. Other sources of private collaborative action could be used, proactively and reactively, to fend off TPTs. Some organizations have already begun to emerge in technology groups that bring together patent lawyers to devise proactive and defensive strategies.¹⁵⁴ Private collaborative action groups, like the aforementioned organizations, could be formed for the proactive or reactive strategies of acquiring potentially contestable patents, generating “rainy day” funds for future litigation, or acting as the hosting entity for collaborative action by defendants—gathering threatened parties, devising a common strategy, selecting a representative party, collecting expenses and managing litigation.¹⁵⁵ Trade associations would likely be ideal vehicles for these collaborative action groups as they are built around a common technology or business and typically already have common interests, dues-paying members, experience in managing litigation and in-house counsel or relationships with law firms.

¹⁵² Tanya Prive, *What Is Crowdfunding and How Does It Benefit the Economy*, FORBES (Nov. 27, 2012, 10:50 AM), <http://www.forbes.com/sites/tanyaprive/2012/11/27/what-is-crowdfunding-and-how-does-it-benefit-the-economy/>.

¹⁵³ *Id.*

¹⁵⁴ Ronnie Cohen, *Make Alliances to Fend Off ‘Trolls’ - Lawyers*, REUTERS LEGAL, Dec. 12, 2013.

¹⁵⁵ *See id.*

C. Fee Shifting and Exemplary Damages—Providing Incentives for Private, Collaborative Action Against TPTs

In order to diminish or avoid the free rider problem, incentives must be established for potential defendants to get off the bleachers and into the ring by joining in on collaborative actions. A proposal for combating TPTs, therefore, should include a provision for fee shifting reasonable attorney's fees and expenses. Fee shifting is a well-known mechanism that is increasing in popularity.¹⁵⁶ Again, the resources and risks involved with patent litigation are high and this represents a significant barrier to entry, particularly for small business and entrepreneurs. Traditionally, fee shifting has been reserved in the United States to those cases that foster good public policy, and fighting TPTs does exactly that. As mentioned throughout this Note, TPTs represent a free rider problem, and thus if one defendant (or a group of defendants acting collaboratively, as discussed in this solution) is successful in having the courts declare appropriate patents invalid, they are not only providing a public benefit for current or future threatened parties, but they are also helping to ensure that good-quality patents are issued by the USPTO by providing increased judicial scrutiny of issued patents. As such, granting reasonable attorney's fees and expenses is warranted. These attorney's fees would provide an important compensation incentive for more parties to enter a cohesive agreement to fight the TPT jointly as they have the potential to be reimbursed for their expenses along with distributing their risks.

This incentive, while likely not perfect in attracting all potential defendants, strikes a fair balance between encouraging potential defendants to join an action and being overly-burdensome to other patent assertion entities.¹⁵⁷ This measure also has the advantage of private-ordering flexibility that allows for any type of contribution method to the shared defense, including standardized contributions, contributions based on the size of the entity, anonymous and published contributions. Crowdfunding would also allow large companies and manufacturers who might have an interest in the matter, but do not want to become embroiled in the litigation publicly for fear of retaliation or liability, to contribute anonymously in any amount they desire. In contrast, for those who wish to publicly make a stand or believe that supporting collaborative actions grounds would be good publicity, crowdfunding provides a mechanism for them to help out in varying amounts and without the fear of their own liability.

¹⁵⁶ See generally Patrick H.J. Hughes, *IP Associations Urge High Court to Lower Fees Award Standard (U.S.)*, REUTERS, Dec. 19, 2013, available at 2013 WL 76640204.

¹⁵⁷ Further, to the extent that states or the federal government wish to recognize the public benefits that can be realized by successfully challenging TPTs via non-infringement and/or invalidity proceedings, they may choose to provide grants and/or tax incentives to encourage these actions.

The aforementioned fee-shifting statutes such as the SHIELD Act, however, fall short in some respects. A fee-shifting statute should follow the traditional method of awarding reasonable attorney's fees only in exceptional cases. In the unique patent context, it makes sense to borrow from the bad faith test in the Vermont statute.¹⁵⁸ Fee shifting should be based on bad faith factors such as those listed in the Vermont statute, but not limited to those factors to allow judicial rulemaking, common sense and intrinsic fairness to keep pace with the nefarious ingenuity of TPTs.

Attorney's fees alone, however, may not prove enough to incentivize collective action based on the uncertainty of collection. Therefore, the use of exemplary damages in exceptional cases would provide possible compensation for these risks in order to properly incentivize potential defendants to challenge TPTs. The use of exemplary damages is an extreme measure, however, and should only be considered if the implementation of attorney's fees and expenses proves to be too weak to adequately incentivize collective or individual action against the TPTs. Should exemplary damages be utilized, they should follow the same multi-factored test described under the Vermont statute and be limited by statute to the amount found to properly incentivize parties to join collaboratively to sufficiently thwart TPTs. This may be determined academically or by real world experimentation.

In an example previously mentioned, a TPT was suing small companies for the use of networked printer-scanner-copiers.¹⁵⁹ The TPT specifically stated in its threatening letters that it did not wish to pursue the manufacturers.¹⁶⁰ The TPT likely stated this because it knew that these manufacturers had the resources to contest the claim, so no known manufacturers became involved.¹⁶¹ Under a crowdfunding mechanism, manufacturers who have an interest in proving that they do not produce infringing technology, but who might not want to contribute directly for fear of liability or lack of funding, could contribute indirectly and in whatever amount via crowdfunding. This could also be an advantageous public relations move for a company. If, on the other hand, the manufacture or parent company did not want to become involved publically for fear of retaliatory action, they could contribute anonymously via crowdfunding.

As another example, banks, particularly small community banks, have become a frequent target for TPTs based on ATM or software technologies.¹⁶² These banks could choose to band together via a trade organization such as the state bankers league to fight TPTs. Further, as patents are national in scope, state-level trade organizations could coordinate with national trade associations to provide even further risk

¹⁵⁸ VT. STAT. ANN. tit. 9, §§ 4195–99 (2013).

¹⁵⁹ Salzberg, *supra* note 57.

¹⁶⁰ See *Vermont v. MPHJ Tech. Invs. LLC*, No. 282-5-13Wncv (Vt. Sup. Ct. 2012).

¹⁶¹ See Salzberg, *supra* note 57.

¹⁶² See Finkle, *supra* note 60.

distribution and a larger base for resource gathering. This would likely make the cost for an individual defendant to join a collective non-infringement or invalidity defense action much smaller, perhaps even lower than the cost of the licensing fee. This lowered cost combined with the possibility of recouping individual costs of litigation, or even exemplary damages, would likely make an individual defendant much more likely to join a collective action.

It is true that a certain segment of potential defendants will remain unlikely to challenge a TPT, despite available incentives, and opt for just paying a licensing fee. The proposed measures strike an appropriate balance of incentivizing and capturing a significant partition of these potential defendants while not becoming overly burdensome on other patent assertion entities. In the long term, the presented solution coupled with natural market actions will incentivize the majority of potential defendants of TPTs to challenge the validity of the asserted patents and thus reduce the practice of TPTs. This will have the added benefit of restoring confidence in the USPTO, the judicial system in general and lead to better quality patents.

V. CONCLUSION

A key aspect to solving any problem is first identifying the problem itself. The term patent troll is often overused and includes patent assertion entities that protect legitimate business interests and do not generate the same economic concerns as TPTs. While it is difficult to draw bright-line distinctions between TPTs and other patent assertion entities, this Note presents a flexible, multi-factored test based on judicial principals and economic factors that tend to indicate a TPT. Vague, ambiguous and likely invalid patents are typically the basis of a TPTs' business. The AIA has taken steps in reducing TPTs' practice by providing helpful mechanisms, like *inter partes* review, for improving the quality of patents. As TPTs have been the target of much high-profile scrutiny recently, and a great deal of legislation has been proposed to combat their practices. While there are many useful ideas in the proposed legislation, many of the proposals overextend and would capture too many legitimate patent assertion entities, some others under reach, and fail to capture enough TPTs to have a significant impact. Generally, each piece of legislation only addresses a narrow part of the TPT problem. A piece of comprehensive legislation is lacking.

This Note proposes a balanced and comprehensive solution that calls on well-known legislative and judicial reform mechanisms of transparency, crowdsourced funding, fee shifting and possibly exemplary damages. This solution will beneficially alter the public and private sector incentives to act against and challenge TPTs. Private sector entities, in particular, will be incentivized and enabled to act individually and

collaboratively to challenge TPTs. The implementation of this solution would lead to the long-term significant reduction in TPTs as well as vague and ambiguous patents, both of which have significant private and public costs. This solution substantially reduces or even eliminates the harmful TPTs while preserving the social goals of the patent system by protecting legitimate patent assertion entities.

